

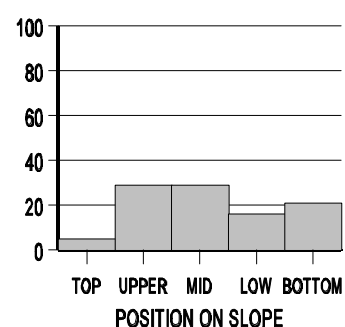
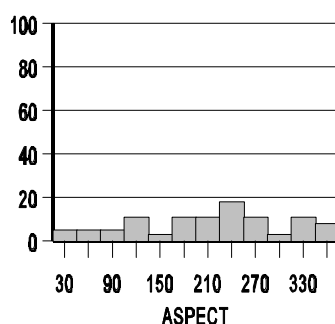
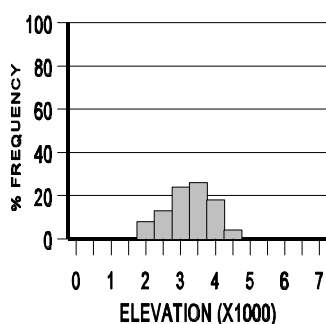
WHITE FIR-WESTERN HEMLOCK/DWARF OREGONGRAPE/WESTERN TWINFLOWER
Abies concolor-*Tsuga heterophylla*/*Berberis nervosa*/*Linnaea borealis longiflora*
 ABCO-TSHE/BENE2/LIBOL (N=38; FS=38)



Distribution. This Association occurs on all Ranger Districts of the Umpqua National Forest, the Applegate, Prospect, and Butte Falls Ranger Districts, Rogue River National Forest, and the Galice Ranger District, Siskiyou National Forest. It may also occur on the Butte Falls Resource Area of the Medford District, Bureau of Land Management.

Distinguishing Characteristics. This Association occurs on moist sites, often in the transition between the Western Hemlock and White Fir Series.

Soils. Parent material is variable, including andesite, basalt, diorite, pumice, sandstone, and welded tuff. Average surface rock cover is 10 percent, with 13 percent gravel, and 3 percent surface bedrock. Soils can be shallow to deep, with an average depth of greater than 37 inches. Based on four plots sampled, surface texture is loam and sandy loam, with 0 to 65 percent gravel, 0 to 5 percent cobbles, and 10 to 26 percent clay. Subsurface texture is clay loam, sandy loam, and loamy



sand, with 5 to 65 percent gravel, 0 to 30 percent cobbles, and 3 to 32 percent clay.

Environment. This Association occurs at an average elevation of 3610 feet and may occur on any aspect. Slope averages 35 percent and ranges from 0 to 77 percent. This Association is commonly on upper to middle third slope positions.

Vegetation Composition and Structure. Total species richness is high for the Series, averaging 39. Douglas-fir is frequent in the overstory, and white fir is common. White fir, Douglas-fir, golden chinquapin, incense-cedar, western hemlock, and Pacific yew are frequent in the understory. Vine maple may be dense in some areas. Other hardwoods may include Douglas maple, big-leaf maple, Pacific madrone, Pacific dogwood, and canyon live oak. In the shrub layer, dwarf Oregon grape, baldhip rose, Pacific blackberry, and creeping snowberry are frequent. In the herb/grass layer, vanillaleaf, trail-plant, common prince's-pine, rattlesnake-plantain, western twinflower, western starflower, and white inside-out-flower are frequent. Moss cover is intermediate for the Series, averaging 13 percent.

Upper layer tree cover is high for the Series, averaging 71 percent. Mid layer tree cover averages 48 percent, and lower layer tree cover averages 36 percent. High shrub cover is low, averaging 12 percent, and low shrub cover is intermediate, averaging 36 percent. Herb/grass cover ranges from 5 to 85 percent, and averages 41 percent.

Common name	Code	Constancy	Cover	Avg. Richness
<u>Overstory trees</u>				3
Douglas-fir	PSME	100	53	
White fir	ABCO	74	9	
<u>Understory trees</u>				7
White fir	ABCO	100	25	
Douglas-fir	PSME	100	7	
Golden chinquapin	CACH6	82	10	
Pacific yew	TABR2	82	10	
Western hemlock	TSHE	79	9	
Incense-cedar	CADE27	79	6	
<u>Shrubs</u>				11
Dwarf Oregon grape	BENE2	100	15	
Baldhip rose	ROGY	95	2	
Pacific blackberry	RUUR	87	3	
Creeping snowberry	SYMO	82	3	
<u>Herbs</u>				23
Western twinflower	LIBOL	92	10	
Common prince's-pine	CHUM	89	5	
Vanillaleaf	ACTR	84	11	
Rattlesnake-plantain	GOOB2	84	1	
Western starflower	TRLA6	82	2	
White inside-out-flower	VAHE	76	2	
Trail-plant	ADBI	76	1	
Whipplevine	WHMO	74	5	
White-flowered hawkweed	HIAL2	74	1	